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EXAMINER	
OSMAN, RAMY M	

ART UNIT	PAPER NUMBER
2157	

DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/833,388	BAKER ET AL.	
	Examiner	Art Unit	
	Ramy M. Osman	2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 June 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-44* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-44* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Status of Claims

1. This communication is in response to RCE amendment filed on June 13, 2005, where applicant amended claims 1,11,20,23 and 40. Claims 1-44 are pending.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 10,18,27,39 and 44 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claims state that the "data is randomly generated". However, nowhere in the specification is this limitation described. Applicants fail to disclose how the data is randomly generated, what generates them, the degree of randomness, and how "random data" are distinguishable from real data. The disclosure does not explain how data is randomly generated.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1,11,19,20,28 and 40 rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Regarding line 12 of the claims, it is unclear how the information is provided for selecting a server. From the claim language, it cannot be determined if the "information for selecting a server" is embedded in the fragments or if the "information for selecting a server" is derived from some sort of processing. It is not clear whether to whom this "information" is provided to. The claim language is indefinite.

6. Claim 11 recites the limitation "the server selection system" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 1-8,19-23,25-35 and 40 rejected under 35 U.S.C. 103(a) as being unpatentable over Jindal et al (US Patent No 6,092,178) in view of Vanlit (US Patent No 6,922,417).

9. In reference to claims 1,20,28 and 40, Jindal teaches a method, a computer program product and an apparatus respectively for providing information for selecting a content server to a network node associated with a client, the method comprising:

receiving a request for a response, message transmitted by a network node associated with a client for selecting a content server (column 2 line 65 – column 3 line 25 and column 5 lines 20-67);

providing a response datagram, the response datagram associated with the received request, wherein a network is configured to allow transmission of the response datagram onto the network without dividing the response datagram into smaller fragments (column 3 lines 25-55, column 6 lines 40-60 and column 7 lines 50-67, Jindal is inherently not configured to fragment datagrams);

transmitting the response to the network node associated with the client for selecting a content server wherein reception of the response by the network node provides information for selecting a content server (Abstract, column 3 lines 49-67 and column 9 lines 34-67).

Jindal fails to explicitly teach where the packets are fragmented wherein the multiple fragments are obtained by dividing the response datagram into multiple fragments, and transmitting the multiple fragments to a network node. However, Vanlit teaches calculating network latency via a request-response mechanism which fragments response packets destined to the client node, wherein time stamp information is utilized to determine latency (Abstract, column 2 lines 44-67 and column 9 lines 40-67).

It would have been obvious for one of ordinary skill in the art to modify Jindal by utilizing the network latency calculation method as per the teachings of Vanlit to divide the

response datagram into multiple fragments, and transmitting the multiple fragments to a network node. One would be motivated to do so since Jindal is concerned with selecting a server with the fastest response time, and Vanlit provides a method of calculating the network latencies.

10. In regards to claims 2,3,29 and 30, Jindal teaches the method and apparatus of claims 1 and 28 respectively. Jindal fails to teach wherein the fragments are transmitted between intervals. However, Vanlit discloses wherein the fragments are transmitted in certain time periods (Abstract, column 2 lines 44-67 and column 9 lines 40-67).

11. In reference to claims 4 and 31, Jindal teaches the method and apparatus of claims 1 and 28 respectively, wherein the network node responsible for selecting a content server is a local domain name server (column 3 lines 5-25 and column 5 lines 45-67).

12. In reference to claim 5 and 32, Jindal teaches the method and apparatus of claims 1 and 28 respectively, wherein the network node responsible for selecting a content server is a server selection system (Summary and column 6 lines 25-67).

13. In reference to claims 6,21 and 33, Jindal fails to teach wherein the request is a Boomerang Control Protocol (BCP) message. However, "Official notice" is taken that BCP is well known in the art as a process corresponding to request/response (also see Applicants Admitted Prior Art, specification pg 2 lines 20-25 & pg 3 lines 1-10).

It would have been obvious for one of ordinary skill in the art to modify Jindal to incorporate BCP. One would be motivated to do so because it is a well known protocol that implements a request/response process.

14. In reference to claims 7,22 and 34, Jindal teaches the method, computer program and apparatus of claims 6,21 and 33 respectively, wherein the response is a DNS reply (column 3 lines 49-67).

15. In reference to claims 8 and 35, Jindal teaches the method and apparatus of claims 1 and 28 respectively, wherein the multiple response fragments comprise fragments of a DNS reply (Summary and column 3 lines 49-67).

16. In reference to claim 19, Jindal teaches method for providing information to a network node associated with a client, the information provided for selecting a content server from a plurality of content servers, the method comprising:

receiving a request for a response from a server selection system responsible for selecting a content server (Abstract and column 2 line 65 – column 3 line 19);

providing a response datagram, the response datagram associated with the received request (Abstract and column 3 lines 25-60);

transmitting the response to the network node associated with the client for selecting a content server wherein reception of the response provides information for selecting a content server (Abstract, column 3 lines 20-65 and column 9 lines 34-67).

Jindal fails to explicitly teach where the packets are fragmented wherein the multiple fragments are obtained by dividing the response datagram into multiple fragments, and transmitting the multiple fragments to a network node. However, Vanlit teaches calculating network latency via a request-response mechanism which fragments response packets destined to the client node, wherein time stamp information is utilized to determine latency (Abstract, column 2 lines 44-67 and column 9 lines 40-67).

It would have been obvious for one of ordinary skill in the art to modify Jindal by utilizing the network latency calculation method as per the teachings of Vanlit to divide the response datagram into multiple fragments, and transmitting the multiple fragments to a network node. One would be motivated to do so since Jindal is concerned with selecting a server with the fastest response time, and Vanlit provides a method of calculating the network latencies.

17. In reference to claim 23, Jindal teaches the computer program of claim 22, wherein reception of all of the fragments by the network node provides drop rate information to the network node associated with the client (column 3 lines 12-25 & 33-37).

18. Claims 11-14 rejected under 35 U.S.C. 103(a) as being unpatentable over Jindal et al (US Patent No 6,092,178) in view of Vanlit (US Patent No 6,922,417) in further view of Mulligan (US Patent No 6,212,190).

19. In reference to claim 11, Jindal teaches method for providing information associated with a network for selecting a content server, the method comprising:

receiving a request from the server selection system for a response message (Abstract and column 2 line 65 – column 3 line 19);

providing a response datagram, the response datagram corresponding to the response message (Abstract and column 3 lines 25-60);

transmitting the response to the network node associated with the client for selecting a content server wherein reception of the response provides information for selecting a content server (Abstract, column 3 lines 20-65 and column 9 lines 34-67).

Jindal fails to explicitly teach identifying a maximum transfer unit, wherein the maximum transfer unit is the upper bound on the amount of data that can be transferred as a single datagram. However, Mulligan teaches network communication utilizing Maximum Transfer Units (MTU). Mulligan discloses a network device setting an upper bound on the amount of data that can be transferred as a single datagram over a network segment towards a destination (column 1 lines 35-67, Summary and column 8 lines 10-50).

It would have been obvious for one of ordinary skill in the art to modify Jindal by identifying a maximum transfer unit, wherein the maximum transfer unit is the upper bound on the amount of data that can be transferred as a single datagram as per the teachings of Mulligan so that the packets can be fitted according to a maximum transfer unit of the network segment it will traverse.

Jindal also fails to explicitly teach dividing the response datagram into multiple fragments, and transmitting the multiple fragments to a network node. However, Vanlit teaches calculating network latency via a request-response mechanism which fragments response packets destined to the client node, wherein time stamp information is utilized to determine latency (Abstract, column 2 lines 44-67 and column 9 lines 40-67).

It would have been obvious for one of ordinary skill in the art to modify Jindal by utilizing the network latency calculation method as per the teachings of Vanlit to divide the response datagram into multiple fragments, and transmitting the multiple fragments to a network node. One would be motivated to do so since Jindal is concerned with selecting a server with the fastest response time, and Vanlit provides a method of calculating the network latencies.

20. In reference to claim 12, Jindal teaches the method of claim 11, but fails to teach wherein the request is a Boomerang Control Protocol (BCP) message. However, "Official notice" is taken that BCP is well known in the art as a process corresponding to request/response (also see Applicants Admitted Prior Art, specification pg 2 lines 20-25 & pg 3 lines 1-10).

It would have been obvious for one of ordinary skill in the art to modify Jindal to incorporate BCP. One would be motivated to do so because it is a well known protocol that implements a request/response process.

21. In reference to claim 13, Jindal teaches the method of claim 12, wherein the response is a DNS reply (column 3 lines 49-67).

22. In reference to claim 14, Jindal teaches the method of claim 11 wherein the multiple response fragments comprise fragments of a DNS reply (Summary and column 3 lines 49-67).

23. **Claims 15,16,24,25,36 and 37 rejected under 35 U.S.C. 103(a) as being unpatentable over Jindal (US Patent No 6,092,178) in view of Vanlit (US Patent No 6,922,417) in further view of Alden et al (US Patent No 6,101,543).**

24. In reference to claims 15,24 and 36, Jindal teaches the method, computer program and apparatus of claims 11,20 and 28 respectively, wherein the multiple response fragments are associated with network layer length fields and transport layer length fields (column 3 lines 25-55 and column 6 line 45 – column 7 line 20).

25. In reference to claim 16,25 and 37, Jindal teaches the method, computer program and apparatus of claims 15, 24 and 36 respectively. Jindal fails to explicitly teach wherein the network layer length fields are increased while the transport layer length fields are unmodified.

"Official notice" is taken that datagram packets are well known in the art and that each packet must conform to a standard protocol stack. As illustrated in Figure 1 of Alden et al., the network layer is inherently greater in length than the transport layer length. This is because the network layer header is added to the packet thus altering it and making it a greater network layer length. The network layer length inherently includes the transport layer length, the transport layer header length and the network layer header length.

26. In reference to claim 41, Jindal teaches the apparatus of claim 40, wherein the multiple response fragments are associated with network layer length fields and transport layer length fields (column 3 lines 25-55 and column 6 line 45 – column 7 line 20).

27. In reference to claim 42, Jindal teaches the apparatus of claim 41. Jindal fails to explicitly teach wherein the network layer length fields are increased while the transport layer length fields are unmodified. However, Mulligan discloses network layer length fields are increased while the transport layer length fields are unmodified.

"Official notice" is taken that datagram packets are well known in the art and that each packet must conform to a standard protocol stack. As illustrated in Figure 1 of Alden et al., the network layer is inherently greater in length than the transport layer length. This is because the network layer header is added to the packet thus altering it and making it a greater network layer length. The network layer length inherently includes the transport layer length, the transport layer header length and the network layer header length.

28. Claims 9,10,17,18,26,27,38,39,43 and 44 rejected under 35 U.S.C. 103(a) as being unpatentable over Jindal (US Patent No 6,092,178) in view of Mulligan (US Patent No 6,212,190) in further view of Baehr (US Patent No 5,884,025).

29. In reference to claims 9 and 10, Jindal teaches the method of claim 1. Jindal fails to explicitly teach wherein the multiple response fragments are padded with data. However, Baehr teaches a system adding data to a packet for fragmentation thus allowing it to be fragmented (Summary and column 9 lines 15-50).

It would have been obvious for one of ordinary skill in the art to modify Jindal by fragmenting the response packets as per the teachings of Baehr so that the packets can be fragmented according to a maximum transfer unit of the network segment it will traverse.

30. In reference to claims 17,18,26 and 27, Jindal teaches the method and computer program of claims 11 and 20 respectively. Jindal fails to explicitly teach wherein the multiple response fragments are padded with data. However, Baehr teaches a system adding data to a packet for fragmentation thus allowing it to be fragmented (Baehr, Summary and column 9 lines 15-50).

31. In reference to claims 38,39,43 and 44, Jindal teaches the apparatus of claims 28 and 40 above. Jindal fails to explicitly teach wherein the multiple response fragments are padded with data. However, Baehr teaches a system adding data to a packet for fragmentation thus allowing it to be fragmented (Baehr, Summary and column 9 lines 15-50).

Response to Arguments

32. Applicant's arguments with respect to claims 1-44 have been considered but are moot in view of the new ground(s) of rejection. See above rejections.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramy M. Osman whose telephone number is (571) 272-4008. The examiner can normally be reached on M-F 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RMO
August 17, 2005

ABDULLAHI SHLAH
Primary Examiner